



 **ATMO**  
**sphere**  
solutions for europe  
**natural refrigerants**  
15-16 October 2013, Brussels

SANDEN Europe  
Market trends session

*Olivier CAMPY - CEO*



July, 30th 1943

Foundation

> 2 b.€ in 2012 (62%)

Turnover (international)

59 sites  
in 23 countries

Close to customers

25%  
Automotive AC  
market share

30%  
Vending machines  
market share

Since the 60's  
Thermal Comfort  
Division

15 000  
Employees (w. JV)

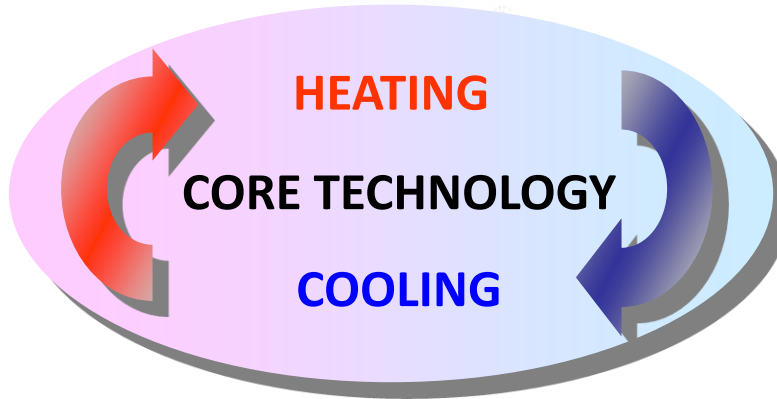
1 out of 7  
OECD awarded  
green plants





AUTOMOTIVE A/C

Technology choice made by  
carmakers

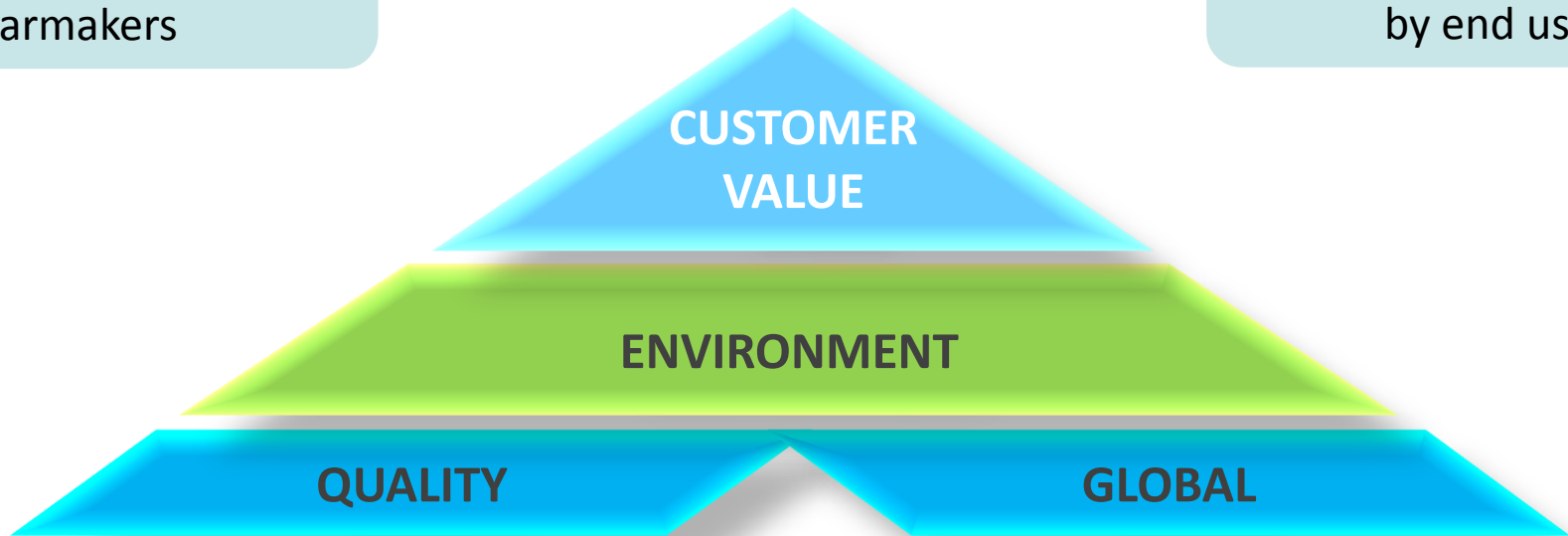


Components and systems <25kW  
basically ....



OTHERS - THERMAL MGT

Technology choice made  
by end users



**CONVICTION!!!**

## Our tools for enhancing our “Global thinking”

- Advanced technologies development:  
cross-divisions SANDEN Global Center of Technology

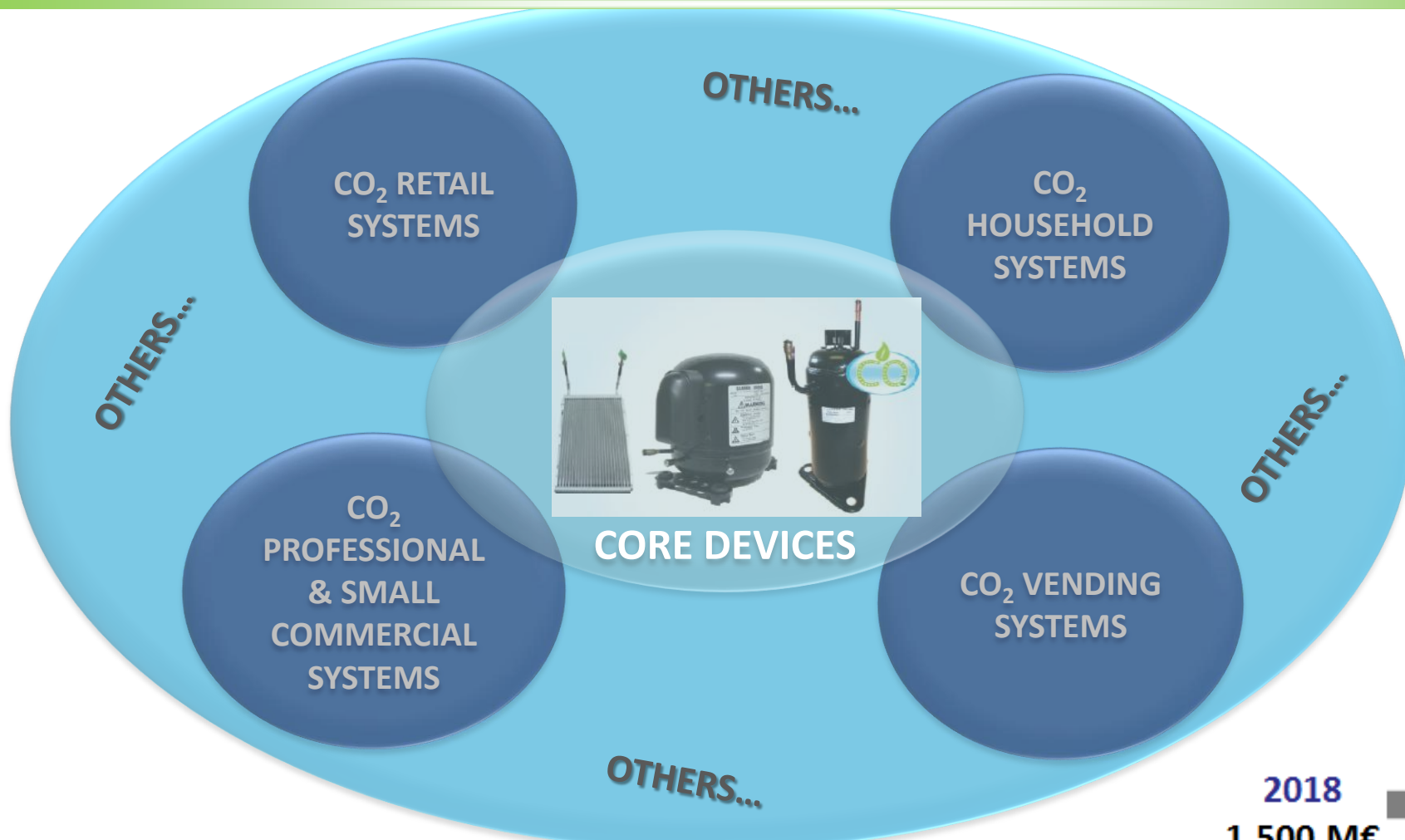


- “Fish finding” – full market analysis (no limit within thermal management)
  - > Thermal comfort / Energy efficiency: detailed identification of growing markets
  - > Clear trend to get rid of F-Gas (CFC, HCFC, ...HFC and others) ??timing??
- SANDEN “DNA” – Our culture
  - > Quality / Global / Environment
  - > Serve our customers
  - > Close to the markets: local Development and Product Management (local value >> global direction)

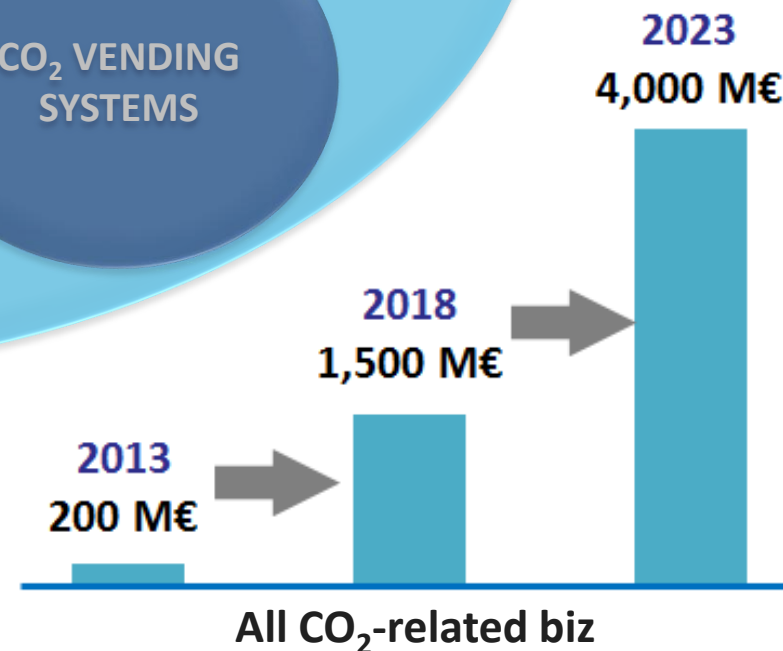
**Key finding: People keen to protect the environment... but not willing to pay for it!!**

**DEPLOY ‘CONCRETE’ AMBITION**

**PROVIDE MARKETS WITH THE HIGHEST PERFORMANCE SOLUTIONS**



**SANDEN wants to drive market change by generating customers' value based on unique CO<sub>2</sub> technologies**





## ECO CUTE – HEAT PUMP WATER HEATER

Residential domestic hot water production

- » High performance - APF = 3.0 (JIS C9220:2011)
- » Cold area option for energy efficient operation by -20°C

Available  
in Japan



Since  
2006



## SPACE HEATING HEAT PUMP

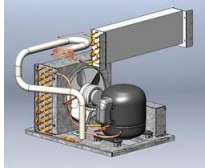
Residential space heating

- » Patented technology
- » Hot water output temperature adjustable from 40°C to 70°C
- » COP = 4.0

Available  
in Japan



Since  
2012



## V21 - BOTTLE & CAN VENDING MACHINE

Commercial refrigeration

- » International certifications: UL, CE, TUV/GS, RoHS and Energy Star
- » Chosen by the most renowned brands in food & beverage



Available globally



Since  
2005



## G-DRINK & G-SNACK VENDING MACHINES

Commercial refrigeration

- » Energy class A++ accordingly to EVA EMP 3.0b standard
- » Indoor and outdoor versions available



Available globally



Since  
2012



## HEAT PUMP WATER HEATER

Residential domestic hot water production

- » Based on Ecocute
- » Quietest and most efficient heat pump water heater in Australia
- » COP = 4.5

Available in Australia



Since  
2010



## aquaECO<sub>2</sub> - HEAT PUMP WATER HEATER

Residential domestic hot water production

- » Developed and manufactured in France for the European market
- » COP = 3.42 (certified EN16147)

Available  
in Europe



Since  
2011



## aquaECO<sub>2</sub> - HEAT PUMP WATER HEATER, LARGE CAPACITY

Hot water production - residential & professional

- » Indoor distance installation: up to 12 meter distance allowed between heat pump unit and DHW tank
- » Tank capacities available from 200 to 750L

Available  
in Europe



Since  
2012



## aquaECO<sub>2</sub> - COMBI-TYPE HEAT PUMP

Residential space heating  
& domestic hot water production

- » The first combi-type CO<sub>2</sub> heat pump in Europe for households
- » The best COP for domestic hot water production - COP = 3.64 (EN16147)

Available  
in Europe



Since  
2013





solutions for europe

**natural refrigerants**

15-16 October 2013, Brussels

**Thank you very much!**

[info@sanden-europe.fr](mailto:info@sanden-europe.fr)

[www.sanden-europe.fr](http://www.sanden-europe.fr)

